

flow is reduced for the purpose of approximating the ion concentration of the dialysate to the ion concentration of the blood.

14. A method in accordance with claim 4, wherein the determination of the ion concentration of the blood takes place by calculation without reducing the dialysate flow.

15. A method in accordance with claim 4, wherein the detection of the ion concentration in the dialysate takes place by means of an ion-sensitive sensor in the dialysate flowing away from the dialyser.

16. A method in accordance with claim 4, wherein the determined ion concentration of the blood of a patient serves as a controlled variable whose value is influenced by the control variables of citrate addition and/or addition of a substitution medium containing ions.

17. A method in accordance with claim 4, wherein an alarm is triggered when the determined ion concentration in the blood of the patient lies outside a permitted range or differs from a permitted value.

18. A method in accordance with claim 4, wherein the ion concentration in the compartment of the dialyser on the blood side is determined without interrupting the citrate supply and is compared with a permitted threshold value of the ion concentration and the citrate feed is changed in dependence on this comparison.

*A<sup>2</sup> cont* 19. A method in accordance with claim 4, wherein the ions are calcium ions and/or magnesium ions.

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*A<sup>3</sup>* 23. A dialyser in accordance with claim 20, wherein means for adding a substance are connected to the dialysis line by which the pH of the dialysate can be changed.

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25. A dialyser in accordance with claim 20, wherein means are provided by which the dialysate flow can be reduced temporarily.

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*A<sup>4</sup>* 26. A dialyser in accordance with claim 20, wherein a control unit is provided which controls the means for adding citrate to the blood in time intervals or on actuation by the operator such that the addition is temporarily interrupted and which records the concentration value determined by the means for detecting an ion concentration in the dialysate after the start of the interruption of the citrate addition continuously or in time intervals.

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*A<sup>5</sup>* 28. A dialyser in accordance with claim 20, wherein a regulating unit is provided which is connected to the means for detecting an ion concentration in the dialysate and to the means for adding citrate and/or to the means for adding a substitution solution containing ions and which initiates an increase or a lowering of the addition amount of citrate and/or of substitution solution containing ions in dependence on the comparison between a nominal value or a nominal value range and the determined actual value of the ion concentration.

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*A<sup>6</sup>* 30. A dialyser in accordance with claim 20, wherein an alarm unit is provided which triggers an alarm on determination of a critical

individual measurement of the ion concentration or on determination of a critical trend of individual measurements.

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